

Appl. No: 09/551,233
Amdt. Dated 27 July 2004
Reply to Office action of 28 April 2004

REMARKS/ARGUMENTS

Claims 12 and 15-19 are pending in this case. The allowance of claim 12 is acknowledged. Claims 15-19 are finally rejected.

Claims 15-19 stand rejected under 35 USC 103(a) as being unpatentable over Cuchiari et al in view of Izuha et al and Chu et al. The rejection under 35 USC 103(a) is respectfully traversed.

In particular, Izuha et al is cited as the reference, in combination with the other cited references, that teaches "a substantially uniform grain diameter" as claimed in claim 15. Support for this limitation in the present invention is found, inter alia, in the photograph of FIG. 7A and the accompanying specification text. The corresponding teachings according to the Examiner's explanation in the Detailed Action is supposedly found at Column 6, lines 52-53 and FIG. 4A of Izuha et al.

The assertion that Izuha et al contains the "substantially uniform grain diameter" limitation of claim 15 is respectfully traversed.

Column 6, lines 52-53 teach only that the "size of the columnar grains A is preferably in the range from 5 to 500 nm". Izuha et al further teaches that the grain size should not be less than 2 nm or greater than 1000 nm, because "it is difficult to successively grow the columnar grains from the lower electrode 4 to the upper electrode 6". (Column 6, lines 55-57).

Izuha et al, however, is silent as to whether or not the grain size has a "substantially uniform grain diameter" as claimed. The only teachings are the range for the size of the columnar grains. A film having differing grain sizes is not precluded by Izuha et al as long as the grain sizes are within the stated range of 5 to 500 nm.

Further, FIG. 4A of Izuha et al is only a schematic representation of the columnar grains. It is not a clear photomicrograph as in the present application,

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and there are no corresponding teachings in Izuha et al that the columnar grains are substantially uniform in diameter. A photomicrograph is provided in FIG. 4B of Izuha et al. This photomicrograph, however, does not have sufficient detail to provide a teaching of "substantially uniform" columnar grains as claimed.


Thus, since the Izuha et al reference is silent to one of the bona fide limitations found in claim 15, it is deemed that the combination of Izuha et al with Cuchiario et al and Chu et al is insufficient to sustain a rejection under 35 USC 103(a). As such, claim 15 is deemed to be patentable over the cited combination of references and allowable under 35 USC 103(a). Claims 16-19 are deemed to be allowable as being dependent upon an allowable base claim.

In view of all of the above, the claims are now believed to be allowable and the case in condition for allowance which action is respectfully requested. Should the Examiner be of the opinion that a telephone conference would expedite the prosecution of this case, the Examiner is requested to contact Applicants' attorney at the telephone number listed below.

No fee is believed due for this submittal. However, any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

Respectfully submitted,

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